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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,197	02/13/2004	Kenji Hayashi	8024-1010	5776

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EXAMINER	
THEISEN, DOUGLAS J	
ART UNIT	**PAPER NUMBER**
1724	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/777,197	HAYASHI, KENJI	
	Examiner	Art Unit	
	Douglas J. Theisen	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8,10,11 and 15-17* is/are allowed.

6)☒ Claim(s) *1,4-7,18 and 19* is/are rejected.

7)☒ Claim(s) *2,3,9,12-14 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *021304*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: On page 16, line 14 "purmice" should be "pumice".

Appropriate correction is required.

Claim Objections

3. Claim 3 is objected to because of the following informalities: Apparatus claim 3 contains the process limitation "... the control unit controls a degree of opening of the pressure reducing/ regulating valve". Appropriate correction is required.

4. Claim 4 is objected to because of the following informalities: Apparatus claim 4 contains the process limitation "... the detecting device detects the amount of air dissolved in both the liquid which is to be fed to the degassing device and the liquid which has been discharged from the degassing device". Appropriate correction is required.

5. Claim 5 is objected to because of the following informalities: Apparatus claim 5 contains the process limitation "... the detecting device detects the amount of air dissolved in the liquid which has been discharged from the degassing device". Appropriate correction is required.

6. Claim 8 is objected to because of the following informalities: In line 9 "... a switching device for switching providing ..." is unclear. Does applicant mean "...a switching device for providing ..."? Appropriate correction is required.

7. Claim 9 is objected to because of the following informalities: Apparatus claim 9 contains the process limitation "... the control unit operates opening and closing of the open-close valves". Appropriate correction is required.

8. Claim 11 is objected to because of the following informalities: In line 3 the second instance of "a" should be "an". Appropriate correction is required.

9. Claim 12 is objected to because of the following informalities: Apparatus claim 12 contains the process limitation "... the control unit controls opening and closing of the open-close valve...". In line 3 the second instance of "a" should be "an". Appropriate correction is required.

10. Claim 13 is objected to because of the following informalities: Apparatus claim 13 contains the process limitation "... the detecting device detects the amount of air dissolved in both the liquid which is to be fed to the group of degassing devices and the liquid which has been discharged from the group of degassing devices". Appropriate correction is required.

11. Claim 14 is objected to because of the following informalities: Apparatus claim 14 contains the process limitation "... the detecting device detects the amount of air dissolved in the

liquid which has been discharged from the group of degassing devices". Appropriate correction is required.

12. Claim 19 is objected to because of the following informalities: In line 2 "amounts" should be "amount". Appropriate correction is required.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1, 5-7, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent application publication 2003/0029317 to Russell et al. Russell describes a liquid degassing system comprising a degassing device equipped with a degassing film (deoxygenating means 103; a Gastorr deoxygenating device, which uses a degassing membrane), a detecting device (oxygen analyzer 105), a degassing regulating unit (pumping means 104), and a control unit (computer system). Russell describes a liquid degassing method for degassing air dissolved in a liquid (it is inherent that the deoxygenating of Russell is equivalent to removing dissolved air, since applicant has defined detecting and removing air as detecting and removing oxygen) comprising preparing a degassing device (preparing the system for deoxygenating), feeding a liquid to the degassing device and discharging the liquid therefrom (pumping means 104 draws solution from container 102), detecting an amount of air dissolved in the liquid which has been discharged from the degassing device (concentration of oxygen in the solution is monitored by

oxygen analyzer 105), and regulating a degree of degassing performed by the degassing device, based on detection results (the information about the oxygen concentration is fed to a computer system to adjust the speed of solution pumping so as to adjust the solution residence time in the deoxygenating means). Claims 5 and 7 have expressions relating the apparatus to contents thereof during an intended operation and have no significance in determining patentability of the apparatus claims. (See MPEP 2115.) See the figure and paragraphs 11 to 22.

15. Claims 1, 4, 5, 7, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 4,259,360 to Venetucci et al. Venetucci describes a liquid degassing system comprising a degassing device (deoxygenation chamber 19), a detecting device for detecting an amount of air dissolved in a liquid which is to be fed to the degassing device (dissolved oxygen meter 71 and probe 73) (it is inherent that the deoxygenating of Venetucci is equivalent to removing dissolved air, since applicant has defined detecting and removing air as detecting and removing oxygen) and a detecting device for detecting an amount of air dissolved in a liquid which has been discharged from the degassing device (dissolved oxygen meter 65 and probe 67), a degassing regulating unit (sparger flow control assembly 33), and a control unit (control panel 75). Venetucci describes a liquid degassing method for degassing air dissolved in a liquid (it is inherent that the deoxygenating of Venetucci is equivalent to removing dissolved air, since applicant has defined detecting and removing air as detecting and removing oxygen) comprising preparing a degassing device (it is inherent that the system would be prepared for use), feeding a liquid to the degassing device and discharging the liquid therefrom (pump 13 and discharge line 15 lead to the deoxygenation chamber 19 and the deoxygenated water is withdrawn from the chamber 19), detecting an amount of air dissolved in the liquid which has been discharged from

the degassing device (the dissolved oxygen meter 71 reads the level of oxygen in the incoming water) and detecting an amount of air dissolved in the liquid which has been discharged from the degassing device (the dissolved oxygen meter 65 provides a direct readout of the amount of oxygen in the deoxygenated water), and regulating a degree of degassing performed by the degassing device, based on detection results (the dissolved oxygen meter 71 reads the level of oxygen in the incoming water and sends an appropriate signal to control panel 75 and meter 65 feeds a signal to control panel 75 so adjustments can be made to increase or decrease the flow rate of nitrogen should the level of oxygen begin to vary from the desired level). Claims 5 and 7 have expressions relating the apparatus to contents thereof during an intended operation and have no significance in determining patentability of the apparatus claims. (See MPEP 2115.) See figure 1 and column 1, lines 40-60; column 2, lines 12-40; and column 4, lines 8-52.

Allowable Subject Matter

16. Claims 2 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. Claim 3 would be allowable if rewritten to overcome the objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

18. Claims 9 and 12-14 would be allowable if rewritten to overcome the objections set forth in this Office action.

19. Claims 8, 10, 11, 15-17 are allowed.

20. The following is an examiner's statement of reasons for allowance: The reasons for allowance are that the closest prior art shows applicant's features of a liquid degassing system comprising a group of devices arranged in rows, each of the group of degassing devices having a liquid providing flow path for providing thereto a liquid which is to be degassed and a liquid discharge flow path for discharging therefrom a liquid which has been degassed. The closest prior art does not show the above in combination with applicant's features of a detecting device for detecting an amount of air dissolved in at least one of the liquid which is to be fed to the group of degassing devices and the liquid which has been discharged from the group of degassing devices; a switching device for providing the liquid to at least one degassing device from among the group of degassing devices; and a control unit for operating the switching device based on detection results obtained by the detecting device, thereby providing the liquid to at least one degassing device selected by the switching device.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

21. The following is a statement of reasons for the indication of allowable subject matter: The reasons for the indication of allowable subject matter are that the closest prior art shows applicant's features as defined in claim 1. The closest prior art does not show applicant's features as defined in claim 1 in combination with the degassing device being equipped with a pipe for connecting the degassing device with a vacuum pump, and the degassing regulating unit being a pressure reducing/ regulating valve installed in the pipe. The reasons for the indication

of allowable subject matter are that the closest prior art shows applicant's features as defined in claim 18. The closest prior art does not show applicant's features as defined in claim 18 in combination with the liquid being a water-based coating liquid.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Theisen whose telephone number is 571-272-1168. The examiner can normally be reached on Monday, Tuesday, and Wednesday 6:30 until 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

djt

DUANE SMITH
PRIMARY EXAMINER
3-20-06